United States Patent

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[54] **ELECTRICAL KEYBOARD SWITCH MECHANISM WITH IMPROVED RESILIENT DIAPHRAGM CONTACT ACTUATOR**
9 Claims, 4 Drawing Figs.

[52] **U.S. Cl.** **200/5,** 200/46, 200/86, 200/83, 200/159, 179/90, 235/145
[51] **Int. Cl.** **H01h 9/26,** H01h 43/08, H01h 3/02
[50] **Field of Search** ..... 200/1, 5, 17, 18, 46, 52, 83.8, 86, 86.1, 86.5, 159 B, 61.43, 172; 179/90 K; 235/145; 178/17

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ABSTRACT: A keying mechanism is described which can be advantageously employed in a high density or highly miniaturized keyboard. The mechanism employs the principles of an elastic diaphragm switch but, instead of including a continuous elastomeric sheet, such switch comprises a discrete elastomeric plunger for each key operating position, the plungers being freely guided through an apertured guide plate. An elastomeric nomenclature sheet is provided on the guide plate to provide key indicia and to seal the mechanism against dust and dirt. A metallic grid having apertures at the key positions is provided on the nomenclature sheet and functions to prevent accidental triggering of the keyboard.